

# yumeng ma

HUMAN-AI INTERACTION · ACCESSIBILITY · VISUAL & SOCIAL COMPUTING

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## Education

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### University of Washington

Seattle, WA

INCOMING PHD IN COMPUTER SCIENCE AND ENGINEERING

### Brown University

Providence, RI

SC.M IN COMPUTER SCIENCE (HUMAN-COMPUTER INTERACTION)

2022 - Present

GPA: 4.0 / 4.0

Coursework: UI/UX, Designing Humanity Centered Technology, HCI Seminar, Collaborative Robotics, Computer Graphics

### Arizona State University

Tempe, AZ

B.S. IN COMPUTER SCIENCE AND PSYCHOLOGY

2019 - 2022

Barrett Honors College

GPA: 4.0 / 4.0

Summa Cum Laude

Thesis: "Assessing Exhibit Interaction through Bridging the Connections Between Biometrics and Traditional Tools"

## Publications

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\* *Equal Contribution*

### CONFERENCE PROCEEDINGS

Zainab Iftikhar, **Yumeng Ma**, and Jeff Huang. 2023. "Together but not together": Evaluating Typing Indicators for Interaction-Rich Communication. In Proceedings of the 2023 Conference on Human Factors in Computing Systems (CHI '23). *Paper*

Ian Gonsler, **Yumeng Ma**, Ivan Pineda-Dominguez, Matthew Lee, and Yuxin. 2023. The Mixed Reality Passthrough Window: Rethinking the Laptop Videoconferencing Experience. Human Interaction and Emerging Technologies (IHET-AI 2023): Artificial Intelligence and Future Applications. *Paper*

### SHORT PAPERS & EXTENDED ABSTRACTS

**Yumeng Ma**\* and Jiahao Ren\*. 2023. ProactiveAgent: Personalized Context-Aware Reminder System. In The 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Adjunct). *Paper*

Ian Gonsler, Mandy He, Kevin Hsu, Leon Lau, Arun Kavishwar, Jinha Kang, Maya Fleischer, Li June Choi, Vanessa Chang, Asad Khan, Ray Sun, Sicheng Li, **Yumeng Ma**, Michael Chandler, and Keyu Zhu. 2023. Integrating Interfaces into Furniture: New Paradigms for Ubiquitous Computing, Mixed Reality, and Telepresence within the Built Environment In Proceedings of the 6th Conference on Media Architecture Biennale. (MAB '23). *Paper*

## Research Experience

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### Brown University Department of Neuroscience (Paradiso Lab)

Providence, RI

GRADUATE RESEARCHER

2023 - Present

- Building a visual prosthesis software to help blind and visually impaired users locate and find everyday objects.

### Brown University (Sonification Project for NASA)

Providence, RI

RESEARCH ASSISTANT

2023 - Present

- Collaborating with scientists from the Smithsonian Observatory and NASA to develop a sound and haptic enabled space visualization cross platform mobile app for visually impaired individuals.

**Brown University (Mixed Reality Window Project)***Providence, RI***DESIGN RESEARCHER***2022 - 2023*

- Introducing a new paradigm for the integration of AR into laptop and desktop displays, enabling local users to interact more easily and seamlessly with remote users during videoconferencing sessions.

**University of California Los Angeles (HCI Lab)***Los Angeles CA***RESEARCH INTERN***2023*

- Leveraged LLMs and personal agents to create a proactive reminder and suggestion app by taking in user context, history, and spoken interactions.

**Brown University (Robotic Arm Manipulation)***Providence, RI***STUDENT RESEARCHER***2023*

- Performed and tested text-driven robot grasp tasks with CLIP-feature field in NeRF.

**Brown University (HCI Lab)***Providence, RI***DISTRIBUTED RESEARCH EXPERIENCES FOR UNDERGRADUATES***2022*

- Designed novel typing indicators and found that they enhance user co-presence in written communication through in depth surveys and interviews.

**Arizona State University Department of Psychology (SoLET Lab)***Tempe, AZ***RESEARCH ASSISTANT***2022*

- Conducted testing and evaluation of tutoring systems to optimize learning and educational practices for underrepresented groups.

**NASA Psyche Mission***Tempe, AZ***COLLABORATOR***2021-2022*

- Developed a web app that enabled users to interact with the Psyche Spacecraft model and conducted user studies with biometric data analysis, revealing that the app increased public engagement.

## Professional Experience

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**Civillience***Remote***PRODUCT MANAGER & UI/UX DESIGN INTERN | LIAISON BETWEEN FRONTEND AND UIUX***2023*

- Leading the UI/UX team to design a web-based app with interactive health data visualizations and create reusable components for the design system to maintain consistency throughout the product.

**Clocky***Remote***SOFTWARE DEVELOPER INTERN***2023*

- Developed a new version of clocky.com using Shopify's Liquid language.

## Awards, Fellowships, & Grants

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2024 **NSF Graduate Research Fellowship**, NSF

2024 **Paul G. Allen School First- Year Ph.D. Fellowship**, University of Washington

2024 **CRA-WP Grad Cohort for Women**, CRA-WP

2023 **Tapia Celebration of Diversity in Computing Conference Scholarship**, Brown University

2019 - 2023 **Microsoft DisAbility Scholarship**, Microsoft

2022 **Google CS Research Mentorship Program (CSRMP) Fellowship**, Google

2022 **Virtual Grace Hopper Celebration (GHC) Scholarship**, AccessComputing

## Teaching Experience

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Spring '22 **Information Assurance**, TA for Adam Doupe and Tiffany Bao, Arizona State University

Extracurricular & Work Activities \_\_\_\_\_

2021 - Present	<b>Member</b> , AccessComputing	
2022 - 2024	<b>Master's Representative</b> , Brown University CS Diversity Committee	<i>Providence, RI</i>
2023	<b>Student Volunteer</b> , UIST	<i>San Francisco, CA</i>
2020 - 2021	<b>Microsoft Support / Xbox Advocate Contract</b> , Microsoft	<i>Tempe, AZ</i>

Skills \_\_\_\_\_

<b>Programming</b>	Python, C/C++, C#, Java, Unix/Linux, ROS
<b>Web</b>	HTML, CSS, Javascript, Typescript, React, Vue, APIs, Git
<b>Game Dev</b>	Unity, OpenGL
<b>Data</b>	Jupyter Notebook, MySQL, MATLAB
<b>Design</b>	UI/UX, Adobe Creative Suite, Figma, Wireframing, Fusion360, Blender
<b>Hardware</b>	Arduino, Rasberry Pi